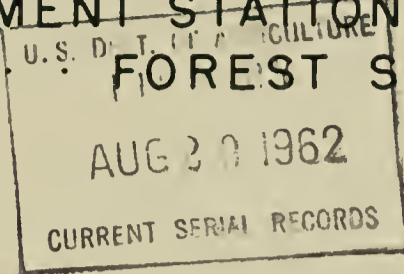


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TECHNICAL NOTES

LAKE STATES FOREST EXPERIMENT STATION
U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE



No. 626

Production of Charcoal and Charcoal Briquettes--Lake States, 1961

Charcoal manufacturers have been welcome users of low-grade hardwoods and sawmill residues in the Lake States. But a complete canvass of 1961 charcoal and charcoal briquette production in Minnesota, Wisconsin, and Michigan indicates that these products continue to be only a minor use of poor-quality timber. Temporarily, at least, the upward trend in regional production has ceased.

In 1961, 15 producers (3 more than in 1956) manufactured 67,122 tons of charcoal, 31 percent less than in 1956. By State the production totaled 1,291 tons in Minnesota, 7,078 tons in Wisconsin, and 58,753 tons in Michigan. The decrease in production may be accounted for to some extent by the closing of a large Michigan plant in September 1961 and by competition from lignite charcoal made in Canada and North Dakota.

Jobbers, industrial users, and briquetting plants bought 12,171 tons; the remaining material was stored or used for briquetting in integrated companies. More than half of the sales were to briquetting plants. Sales to jobbers and industrial users were off sharply from 1956 figures.

A total of 93 kilns and retorts, including three continuous process kilns, are available for use by active plants. More than half are in the 1 to 5 ton size-class (see table 1). Total potential annual capacity is 100,000 tons based on a 310-day operating year (see table 2). With this capacity potential annual raw wood use is approximately 250,000 cords.

Four briquette plants manufactured 61,091 tons during 1961. Briquette sales totaled 60,875 tons--jobbers bought 40,890 tons, chain stores 15,960 tons, and others 4,025 tons. Twelve percent of the charcoal used was purchased; the balance was produced by the the briquette manufacturers.

The data presented here were gathered as part of an intensive canvass of the Lake States wood-charcoal industry. Some production statistics are not shown, because to do so would reveal data on individual plants.

July 1962

James E. Blyth, Research Forester

(Over)

Table 1.--Number of kilns by State and size-class--1961 ^{1/}

State	Size-class				Total kilns
	(tons of charcoal per carbonizing cycle)				
	Under 1	1 - 5	6 - 25	Over 25	
Minnesota	-	4	7	-	11
Wisconsin	-	27	14	11	52
Michigan	4	22	1	-	27
Total all states	4	53	22	11	90

^{1/} Excludes continuous process kilns.

Table 2.--Number of kilns and potential annual capacity
by State and type of kiln, 1961 ^{1/}

State	Brick		Concrete or masonry block		Steel (beehive)		Other		Total potential capacity
	Kilns	Potential capacity	Kilns	Potential capacity	Kilns	Potential capacity	Kilns	Potential capacity	
	Number	Tons	Number	Tons	Number	Tons	Number	Tons	Tons
Minnesota	-	-	4	891	-	-	7	1,492	2,383
Wisconsin	11	11,244	41	10,475	-	-	1	246	21,965
Michigan	-	-	-	-	4	310	^{2/} 25	75,392	75,702
Total, all States	11	11,244	45	11,366	4	310	33	77,130	100,050

^{1/} Potential annual capacity is defined as the quantity of charcoal that could be produced in a 310-day operating year. Number of kilns includes three continuous process kilns.

^{2/} Retorts.